REMARKS

This is in response to the Office Action mailed on November 3, 2004.

Claims 1, 7, 10, 11, 13, 17, 18, 20, 23, 24, 28, 30-32, and 42 are amended. Claims 1-44 remain pending in this application.

Information Disclosure Statement

Applicant submitted an Information Disclosure Statement and a 1449 Form with the application on July 11, 2001. Applicant respectfully requests that an initialed copy of the 1449 Form be returned to Applicants' Representatives to indicate that the cited references have been considered by the Examiner.

Reservation of the Right to Swear Behind References

Applicant maintains the right to swear behind any references which are cited in a rejection under 35 U.S.C. §§102(a), 102(e), 103/102(a), and 103/102(e). Statements distinguishing the claimed subject matter over the cited references are not to be interpreted as admissions that the references are prior art.

§112 Rejection of the Claims

Claim 30 was rejected under 35 USC § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant traverses and asserts that one skilled in the art would be enabled by the application as filed.

Claim 30 is amended for clarity. Applicant requests that the rejection be reconsidered and withdrawn.

§102 Rejection of the Claims

Claims 1-3, 7, 8, 10, 18, 20-23, 25-28, 30, 31, 33-38, and 42-44 were rejected under 35 USC § 102(b) as being anticipated by Baker et al. (U.S. Patent No. 6,445,231).

Independent claim 1 is amended for clarity. As amended, claim 1 recites, among other things, "the fine delay segment configured for adjusting the fine delay based on a plurality of shifting signals that are generated when the external and internal signals are not synchronized, and wherein the coarse delay is configured for adjusting the coarse delay based on a combination of the plurality of shifting signals and the fine delay applied to the coarse delay signal". Thus, both the fine segment and the coarse segment of claim 1 are configured to adjust the coarse delay or the fine delay based on the same shifting signals. Applicant is unable to find in Baker et al. a fine delay segment configured for adjusting the fine delay based on "a plurality of shifting signals" that are generated when the external and internal signals are not synchronized, and wherein the coarse delay is configured for of adjusting the coarse delay based on a combination of "the plurality of shifting signals" and the fine delay applied to the coarse delay signal.

Baker et al. appears to teach a delay locked loop (DLL) having elements different from the elements recited in claim 1. Baker et al. teaches a DLL having a coarse loop 205a and a fine loop 205b (FIG. 2A). Coarse loop 205a and fine loop 205b of Baker et al. adjust a coarse delay and a fine delay based on different (not the same) shifting signals. For example, in FIG. 3A of Baker et al., coarse loop 205a adjusts the coarse delay of a delay line 310 based on shifting signals SL and SR provided by a phase detector 302. In FIG. 9 of Baker et al., fine loop 205b adjusts a fine delay of a delay line 910 based on shifting signals SL and SR provided by a different phase detector 902. The shifting signals provided by phase detector 302 are different from the shifting signals provided by phase detector 902. Thus, coarse loop 205a and fine loop 205b of Baker et al. adjust the coarse delay and the fine delay based on different shifting signals. In contrast, claim 1 recites that the fine delay segment is configured for adjusting the fine delay based on "a plurality of shifting signals" and wherein the coarse delay is configured for of adjusting the coarse delay based on a combination of "the plurality of shifting signals" and the fine delay applied to the coarse delay signal. Accordingly, Applicant requests that the rejection of claim 1 be reconsidered and withdrawn and that claim 1 and dependent claims 2 and 3 be allowed.

Independent claim 7 is amended. As amended, claim 7 recites, among other things, the fine delay segment including "a selector, the selector responsive to a select signal to select from among the fine delay signals to generate an internal clock signal", a phase detector for

generating a plurality of shifting signals based on a difference in phase between the external and internal clock signals, "wherein the fine delay segment is configured to provide the select signal based on the plurality of shifting signals", and "a logic circuit responsive to the combination of the plurality of shifting signals and the select signal" to enable the coarse delay segment to adjust the coarse delay.

Applicant is unable to find in Baker et al. "a selector" in which the selector is "responsive to a select signal to select from among the fine delay signals to generate an internal clock signal". Further, Applicant is unable to find in Baker et al. a fine delay segment "wherein the fine delay segment is configured to provide the select signal based on the plurality of shifting signals". Moreover, Applicant is unable to find in Baker et al. "a logic circuit responsive to the combination of the plurality of shifting signals and the select signal" to enable the coarse delay segment to adjust the coarse delay. Accordingly, Applicant requests that the rejection of claim 7 be reconsidered and withdrawn and that claim 7 and its dependent claims 8 and 10 be allowed.

Independent claim 18 is amended for clarity. As amended, claim 18 recites, among other things, "the fine delay segment configured for adjusting the fine delay based on a plurality of shifting signals that are generated when the external and internal signals are not synchronized, and wherein the coarse delay is configured for of adjusting the coarse delay based on a combination of the plurality of shifting signals and the fine delay applied to the coarse delay signal". Thus, both the fine segment and the coarse segment of claim 18 are configured to adjust the coarse delay or the fine delay based on the same shifting signals. As explained in detail in the discussion of claim 1, Applicant is unable to find in Baker et al. a fine delay segment configured for adjusting the fine delay based on "a plurality of shifting signals" that are generated when the external and internal signals are not synchronized, and wherein the coarse delay is configured for of adjusting the coarse delay based on a combination of "the plurality of shifting signals" and the fine delay applied to the coarse delay signal. Accordingly, Applicant requests that the rejection of claim 18 be reconsidered and withdrawn and that claim 18 and its dependent claims 20-23 and 25-27 be allowed.

Independent claim 23 is amended. As amended, claim 23 recites, among other things, the fine delay segment including "a selector, the selector responsive to a select signal to select from among the fine delay signals to generate an internal clock signal", a phase detector for

generating a plurality of shifting signals based on a difference in phase between the external and internal clock signals, "wherein the fine delay segment is configured to provide the select signal based on the plurality of shifting signals", and "a logic circuit responsive to the combination of the plurality of shifting signals and the select signal" to enable the coarse delay segment to adjust the coarse delay.

Applicant is unable to find in Baker et al. "a selector" in which the selector is "responsive to a select signal to select from among the fine delay signals to generate an internal clock signal". Further, Applicant is unable to find in Baker et al. a fine delay segment "wherein the fine delay segment is configured to provide the select signal based on the plurality of shifting signals". Moreover, Applicant is unable to find in Baker et al. "a logic circuit responsive to the combination of the plurality of shifting signals and the select signal" to enable the coarse delay segment to adjust the coarse delay. Accordingly, Applicant requests that the rejection of claim 23 be reconsidered and withdrawn and that claim 23 and its dependent claims 25-27 be allowed.

Independent claim 28 is amended for clarity. As amended, claim 28 recites, among other things, "the fine delay segment configured for adjusting the fine delay based on a plurality of shifting signals that are generated when the external and internal signals are not synchronized, and wherein the coarse delay is configured for of adjusting the coarse delay based on a combination of the plurality of shifting signals and the fine delay applied to the coarse delay signal". Thus, both the fine segment and the coarse segment of claim 28 are configured to adjust the coarse delay or the fine delay based on the same shifting signals. As explained in detail in the discussion of claim 1, Applicant is unable to find in Baker et al. a fine delay segment configured for adjusting the fine delay based on "a plurality of shifting signals" that are generated when the external and internal signals are not synchronized, and wherein the coarse delay is configured for of adjusting the coarse delay based on a combination of "the plurality of shifting signals" and the fine delay applied to the coarse delay signal. Accordingly, Applicant requests that the rejection of claim 28 be reconsidered and withdrawn and that claim and its dependent claim 29 be allowed.

Independent claim 31 is amended. As amended, claim 31 recites, among other things, the fine delay segment including "a selector, the selector responsive to a select signal to select from among the fine delay signals to generate an internal clock signal", a phase detector for

generating a plurality of shifting signals based on a difference in phase between the external and internal clock signals, "wherein the fine delay segment is configured to provide the select signal based on the plurality of shifting signals", and "a logic circuit responsive to the combination of the plurality of shifting signals and the select signal" to enable the coarse delay segment to adjust the coarse delay.

Applicant is unable to find in Baker et al. "a selector" in which the selector is "responsive to a select signal to select from among the fine delay signals to generate an internal clock signal". Further, Applicant is unable to find in Baker et al. a fine delay segment "wherein the fine delay segment is configured to provide the select signal based on the plurality of shifting signals". Moreover, Applicant is unable to find in Baker et al. "a logic circuit responsive to the combination of the plurality of shifting signals and the select signal" to enable the coarse delay segment to adjust the coarse delay. Accordingly, Applicant requests that the rejection of claim 31 be reconsidered and withdrawn and that claim 31 and its dependent claim 33 be allowed.

Independent claim 34 recites, among other things, "adjusting the fine delay based on the shifting signals" and "adjusting the coarse delay based on both the shifting signal and the fine delay being applied". Thus, both the fine delay and the coarse delay are adjusted based on the same shifting signals. As explained in detail in the discussion of claim 1, Applicant is unable to find in Baker et al. that the fine delay and the coarse delay of Baker et al. are adjusted based on the same shifting signals. Accordingly, Applicant requests that the rejection of claim 34 be reconsidered and withdrawn and that claim 34 and its dependent claims 35-38 be allowed.

Independent claim 42 is amended for clarity. As amended, claim 42 recites, among other things, "adjusting the fine delay in response to the shifting signals" and "adjusting the coarse delay in response to the shifting signals and the unequal amounts of fine delay applied to the coarse delayed signal". Thus, both the fine delay and the coarse delay are adjusted in response to the same shifting signals. As explained in detail in the discussion of claim 1, Applicant is unable to find in Baker et al. that the fine delay and the coarse delay of Baker et al. are adjusted based on the same shifting signals. Accordingly, Applicant requests that the rejection of claim 42 be reconsidered and withdrawn and that claim 34 and its dependent claims 43 and 44 be allowed.

§103 Rejection of the Claims

Claims 4-6, 9, 19, 29, and 39-41 were rejected under 35 USC § 103(a) as being unpatentable over Baker et al. (U.S. Patent No. 6,445,231) in view of Keeth et al. (U.S. Patent No. 6,101,197).

The Applicants respectfully submit that the U.S. Patent No. 6,445,231 is not prior art with respect to any of the pending claims of the present application based on common ownership issue.

The U.S. Patent No. 6,445,231 is issued on September 3, 2002, which is after the filing date (July 11, 2001) of the present invention. Thus, the U.S. Patent No. 6,445,231 may be asserted as a reference under §102(e). A reference asserted under §102(e) that was commonly owned with an application at the time the invention was made cannot preclude patentability of the claims under 35 U.S.C. § 103, where the application has been filed on or after November 29, 1999. *35 U.S.C. § 103(c); 1233 OG 55 (April 11, 2000).*

The present application was filed on July 11, 2001, which is after November 29, 1999. The present application was assigned to Micron Technology Inc. The U.S. Patent No. 6,445,231 was also assigned to Micron Technology Inc. Thus, the U.S. Patent No. 6,445,231 is commonly owned with the present application and is not prior art with respect to all pending claims of the present application. Hence, the common ownership of the U.S. Patent No. 6,445,231 and the present application render the combination of the U.S. Patent No. 6,445,231 and Keeth et al. moot. Accordingly, the issue of whether the Office Action has established a proper *prima facie* case of obviousness under § 103 has not been addressed. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103 be reconsidered and withdrawn.

Notwithstanding that the common ownership renders the combination of the U.S. Patent No. 6,445,231 and Keeth et al. moot, Applicant submits that claims 4-6, 9, 19, 29, and 39-41 are patentable over the U.S. Patent No. 6,445,231 and Keeth et al for the following reasons.

Claims 4-6, 9, 19, 29, and 39-41 depend on independent claims 1, 7, 18, 28, and 34. Thus, claims 4-6, 9, 19, 29, and 39-41 are also patentable over the U.S. Patent No. 6,445,231 and Keeth et al. for reasons at least similar to the reasons presented above regarding the independent claims. Accordingly, Applicant requests that the rejection of claims 4-6, 9, 19, 29, and 39-41 be reconsidered and withdrawn and that claims 4-6, 9, 19, 29, and 39-41 be allowed.

Allowable Subject Matter

Claims 11, 12, 24, and 32 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 11, 24, and 32 are rewritten in independent form. The scope of these claims is not narrowed. Claim 12 is not rewritten because it depends on claim 11. Thus, claims 11, 12, 24, and 32 are in condition for allowance.

Applicant acknowledges the allowance of claims 13-17.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6969 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date Feb 3, 2005

By _____
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Reg. No. 45,416

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 3 day of February, 2005.

Tina Kohwl
Name

Signature

IN THE DRAWINGS

Corrected drawings are supplied herewith, with FIG. 1, FIG. 4, and FIG. 5 labeled "REPLACEMENT SHEET".

FIG. 1 is amended to include label "D" in each of the fine delay elements 122, 124, and 126. FIG. 1 is also amended to include label "C" in each of the register cells 151, 152, 153, and 154.

FIG. 4 is amended to include label "DELAY LINE" in box 412. FIG. 4 is also amended to include label "SHIFT REGISTER" in box 405.

FIG. 5 is amended to include label "D" in each of the fine delay elements 122, 124, and 126. FIG. 5 is also amended to include label "C" in each of the register cells 151, 152, 153, and 154